



Michael (Josh) Lookenbill  
Bureau of Clean Water  
11th Floor, Rachel Carson State Office Building  
Harrisburg, PA 17105-8774

**RE: Proposed Rulemaking: Triennial Review of Water Quality Standards (#7-577)**

Dear Michael Lookenbill and Environmental Quality Board:

Three Rivers Waterkeeper (3RWK) thanks you for the opportunity to submit comments on the proposed rulemaking: Triennial Review of Water Quality Standards. 3RWK was founded in 2009 and aims to improve and protect the water quality of the Allegheny, Monongahela, and Ohio Rivers. These waterways are critical to the health, vitality, and economic prosperity of our region and communities. We are both a scientific and legal advocate for the community, working to ensure that our three rivers are protected and that our waters are safe to drink, fish, swim, and enjoy. We are one of the over 300 organizations that make up the global Waterkeeper Alliance and work together to connect local communities to global environmental and advocacy resources. In general, Three Rivers Waterkeeper supports the regulation of chemicals and subsequent processes in order to protect our most important resource - water. We urge the DEP to continue to regulate harmful chemicals in order to protect our people and our environment.

We appreciate the more stringent regulations for Barium, Boron, Methyl ethyl ketone, 1,2,3-trichloropropane, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, 2,4-D and Xylene. However, we don't believe water quality criteria protecting the health of our public or environment should ever be made less stringent than the previous criteria. After reviewing multiple articles related to the harmful impacts of the proposed chemicals, we are opposed to the less stringent criteria for metolachlor and formaldehyde and ask for a reconsideration. A study done on the relationship between metolachlor and crayfish found that crayfish exposed to 80 ppb (ug/L) metolachlor (high sublethal concentrations) could interfere with "their ability to receive or respond to social signals", impacting their behavior<sup>1</sup>. Additionally, a study on the effects of metolachlor on human liver cells showed "72-h exposure to 50 parts per billion (ppb) metolachlor significantly inhibited growth of these cells compared to untreated controls"<sup>2</sup>. A level of 50 ppb (ug/L) is far below the proposed criteria of 700 ug/L. For formaldehyde, a study showing the Evaluation of the health impact of lowering the formaldehyde occupational exposure limit for Quebec workers determined that a safe level for all workers is 0.75 ppm (750 ug/L)<sup>3</sup>, which is lower than the proposed criteria of 1000 ug/L. Thus, standards should meet both environmental and public health standards that don't exceed known exposure amounts that are harmful.

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<sup>1</sup> Cook ME, Moore PA. The effects of the herbicide metolachlor on agonistic behavior in the crayfish, *Orconectes rusticus*. Arch Environ Contam Toxicol. 2008 Jul;55(1):94-102. doi: 10.1007/s00244-007-9088-z. Epub 2007 Dec 5. PMID: 18060587.

<sup>2</sup> Hartnett S, Musah S, Dhanwada KR. Cellular effects of metolachlor exposure on human liver (HepG2) cells. Chemosphere. 2013 Jan;90(3):1258-66. doi: 10.1016/j.chemosphere.2012.09.077. Epub 2012 Oct 22. PMID: 23084262.

<sup>3</sup> Nolwenn Noisel, Michèle Bouchard, Gaétan Carrier, Evaluation of the health impact of lowering the formaldehyde occupational exposure limit for Quebec workers, Regulatory Toxicology and Pharmacology, Volume 48, Issue 2, 2007, Pages 118-127, ISSN 0273-2300, <https://doi.org/10.1016/j.yrtph.2007.02.001>.



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Human and organism health are incredibly important aspects of these guidelines. We hope you will take this into account when finalizing the new standards. Due to these findings, we oppose the less stringent criteria for metolachlor and formaldehyde, as well as the other three less stringent criteria (acetone, resorcinol and chloroform). Without scientific proof that the less stringent standards will not harm public health and our environment via acute and chronic exposure, standards should not be less stringent. Protecting our people and the environment should be prioritized over industrial ease to pollute our environment.

**We urge the DEP to NOT make the criteria less stringent for metolachlor, formaldehyde, acetone, resorcinol and chloroform and continue to enforce more stringent criteria on pollutants of concern.** Thank you for your time and consideration,

Thank you,

A handwritten signature in green ink that reads "Heather Hulton VanTassel".

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